

C₂-C₆alkynylene, wherein the C₁-C₆alkyl, C₂-C₆alkenylene and C₂-C₆alkynylene of L are each optionally substituted with 1 to 4 substituents independently selected from halogen, —R⁸, —OR⁸, —N(R⁹)₂, —P(O)(OR⁸)₂, —OP(O)(OR⁸)₂, —P(O)(OR¹⁰)₂, and —OP(O)(OR¹⁰)₂;

R⁷ is selected from H, C₁-C₆alkyl, aryl, heteroaryl, C₃-C₈cycloalkyl, C₁-C₆heteroalkyl, C₁-C₆haloalkyl, C₂-C₈alkene, C₂-C₈alkyne, C₁-C₆alkoxy, C₁-C₆haloalkoxy, and C₃-C₈heterocycloalkyl, wherein the C₁-C₆alkyl, aryl, heteroaryl, C₃-C₈cycloalkyl, C₁-C₆heteroalkyl, C₁-C₆haloalkyl, C₂-C₈alkene, C₂-C₈alkyne, C₁-C₆alkoxy, C₁-C₆haloalkoxy, and C₃-C₈heterocycloalkyl groups of R⁷ are each optionally substituted with 1 to 3 R¹³ groups, and each R¹³ is independently selected from halogen, —CN, —LR⁹, —LOR⁹, —OLR⁹, —LR¹⁰, —LOR¹⁰, —OLR¹⁰, —LR⁸, —LOR⁸, —OLR⁸, —LSR⁸, —LSR¹⁰, —LC(O)R⁸, —OLC(O)R⁸, —LC(O)OR⁸, —LC(O)R¹⁰, —LOC(O)OR⁸, —LC(O)NR⁹R¹¹, —LC(O)NR⁹R⁸, —LN(R⁹)₂, —LNR⁹R⁸, —LNR⁹R¹⁰, —LC(O)N(R⁹)₂, —LS(O)₂R⁸, —LS(O)₂R¹⁰, —LC(O)NR⁹OH, —LNR⁹C(O)R⁸, —LNR⁹C(O)OR⁸, —LS(O)₂N(R⁹)₂, —OLS(O)₂N(R⁹)₂, —LNR⁹S(O)₂R⁸, —LC(O)NR⁹LN(R⁹)₂, —LP(O)(OR⁸)₂, —LOP(O)(OR⁸)₂, —LP(O)(OR¹⁰)₂ and —OLP(O)(OR¹⁰)₂;

each R⁸ is independently selected from H, —CH(R¹⁰)₂, C₁-C₆alkyl, C₂-C₈alkene, C₂-C₈alkyne, C₁-C₆haloalkyl, C₁-C₆alkoxy, C₁-C₆heteroalkyl, C₃-C₈cycloalkyl, C₃-C₈heterocycloalkyl, C₁-C₆hydroxyalkyl and C₁-C₆haloalkoxy, wherein the C₁-C₆alkyl, C₂-C₈alkene, C₂-C₈alkyne, C₁-C₆heteroalkyl, C₁-C₆haloalkyl, C₁-C₆alkoxy, C₃-C₈cycloalkyl, C₃-C₈heterocycloalkyl, C₁-C₆hydroxyalkyl and C₁-C₆haloalkoxy groups of R⁸ are each optionally substituted with 1 to 3 substituents independently selected from —CN, R¹¹, —OR¹¹, —SR¹¹, —C(O)R¹¹, —OC(O)R¹¹, —C(O)N(R⁹)₂, —C(O)OR¹¹, —NR⁹C(O)R¹¹, —NR⁹R¹⁰, —NR¹¹R¹², —N(R⁹)₂, —OR⁹, —OR¹⁰, —C(O)NR¹¹R¹², —C(O)NR¹¹OH, —S(O)₂R¹¹, —S(O)R¹¹, —S(O)₂NR¹¹R¹², —NR¹¹S(O)₂R¹¹, —P(O)(OR¹¹)₂, and —OP(O)(OR¹¹)₂;

each R⁹ is independently selected from H, —C(O)R⁸, —C(O)OR⁸, —C(O)R¹⁰, —C(O)OR¹⁰, —S(O)₂R¹⁰, —C₁-C₆alkyl, C₁-C₆heteroalkyl and C₃-C₆cycloalkyl, or each R⁹ is independently a C₁-C₆alkyl that together with N they are attached to form a C₃-C₈heterocycloalkyl, wherein the C₃-C₈heterocycloalkyl ring optionally contains an additional heteroatom selected from N, O and S, and wherein the C₁-C₆alkyl, C₁-C₆heteroalkyl, C₃-C₆cycloalkyl, or C₃-C₈heterocycloalkyl groups of R⁹ are each optionally substituted with 1 to 3 substituents independently selected from —CN, R¹¹, —OR¹¹, —SR¹¹, —C(O)R¹¹, —OC(O)R¹¹, —C(O)OR¹¹, —NR¹¹R¹², —C(O)NR¹¹R¹², —C(O)NR¹¹OH, —S(O)₂R¹¹, —S(O)R¹¹, —S(O)₂NR¹¹R¹², —NR¹¹S(O)₂R¹¹, —P(O)(OR¹¹)₂, and —OP(O)(OR¹¹)₂;

each R¹⁰ is independently selected from aryl, C₃-C₈cycloalkyl, C₃-C₈heterocycloalkyl and heteroaryl, wherein the aryl, C₃-C₈cycloalkyl, C₃-C₈heterocycloalkyl and heteroaryl groups are optionally substituted with 1 to 3 substituents selected

from halogen, —R⁸, —OR⁸, —LR⁹, —LOR⁹, —N(R⁹)₂, —NR⁹C(O)R⁸, —NR⁹CO₂R⁸, —CO₂R⁸, —C(O)R⁸ and —C(O)N(R⁹)₂;

R¹¹ and R¹² are independently selected from H, C₁-C₆alkyl, C₁-C₆heteroalkyl, C₁-C₆haloalkyl, aryl, heteroaryl, C₃-C₈cycloalkyl, and C₃-C₈heterocycloalkyl, wherein the C₁-C₆alkyl, C₁-C₆heteroalkyl, C₁-C₆haloalkyl, aryl, heteroaryl, C₃-C₈cycloalkyl, and C₃-C₈heterocycloalkyl groups of R¹¹ and R¹² are each optionally substituted with 1 to 3 substituents independently selected from halogen, —CN, R⁸, —OR⁸, —C(O)R⁸, —OC(O)R⁸, —C(O)OR⁸, —N(R⁹)₂, —NR⁸C(O)R⁸, —NR⁸C(O)OR⁸, —C(O)N(R⁹)₂, C₃-C₈heterocycloalkyl, —S(O)₂R⁸, —S(O)₂N(R⁹)₂, —NR⁹S(O)₂R⁸, C₁-C₆haloalkyl and C₁-C₆haloalkoxy;

or R¹¹ and R¹² are each independently C₁-C₆alkyl and taken together with the N atom to which they are attached form an optionally substituted C₃-C₈heterocycloalkyl ring optionally containing an additional heteroatom selected from N, O and S;

each R⁴ is independently selected from halogen, —R⁸, —R⁷, —OR⁸, —OR⁸, —R¹⁰, —OR¹⁰, —SR⁸, —NO₂, —CN, —N(R⁹)₂, —NR⁹C(O)R⁸, —NR⁹C(S)R⁸, —NR⁹C(O)N(R⁹)₂, —NR⁹C(S)N(R⁹)₂, —NR⁹CO₂R⁸, —NR⁹NR⁹C(O)R⁸, —NR⁹NR⁹C(O)N(R⁹)₂, —NR⁹NR⁹CO₂R⁸, —C(O)C(O)R⁸, —C(O)CH₂C(O)R⁸, —CO₂R⁸, —(CH₂)_nCO₂R⁸, —C(O)R⁸, —C(S)R⁸, —C(O)N(R⁹)₂, —C(S)N(R⁹)₂, —OC(O)N(R⁹)₂, —OC(O)R⁸, —C(O)N(OR⁸)R⁸, —C(NOR⁸)R⁸, —S(O)₂R⁸, —S(O)₃R⁸, —SO₂N(R⁹)₂, —S(O)R⁸, —NR⁹SO₂N(R⁹)₂, —NR⁹SO₂R⁸, —P(O)(OR⁸)₂, —OP(O)(OR⁸)₂, —P(O)(OR¹⁰)₂, —OP(O)(OR¹⁰)₂, —N(OR⁸)R⁸, —CH=CHCO₂R⁸, —C(=NH)—N(R⁹)₂, and —(CH₂)_nNHC(O)R⁸; or two adjacent R⁴ substituents form a 5-6 membered ring that contains up to two heteroatoms as ring members;

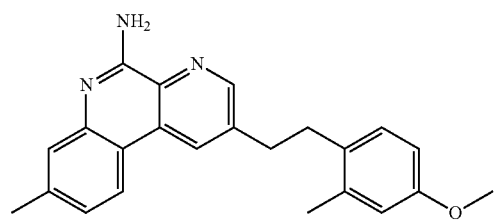
n is, independently at each occurrence, 0, 1, 2, 3, 4, 5, 6, 7 or 8;

each m is independently selected from 1, 2, 3, 4, 5 and 6, and

t is 1, 2, 3, 4, 5, 6, 7 or 8.

7. (canceled)

8. The method of claim 6, wherein the benzonaphthyridine TLR7 agonist is 2-(4-methoxy-2-methylphenethyl)-8-methylbenzo[f][1,7]naphthyridin-5-amine having the structure of



9. The method of claim 6, wherein the benzonaphthyridine TLR7 agonist is 2-(4-(2-(5-amino-8-methylbenzo[f][1,7]naphthyridin-2-yl)ethyl)-3-methylphenyl)propan-2-ol having the structure of